National
Qualifications
2023

2023 Geography

National 5

Finalised Marking Instructions

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General marking principles for National 5 Geography

Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates' responses.

(a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.

(b) If a candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your team leader.

(c) For credit to be given, points must relate to the question asked.

(d) There are six types of question used in this question paper, namely:

A Describe . . .
B Explain . . .
C Give reasons . . .
D Match . . .
E Give map evidence . . .
F Give advantages and/or disadvantages . . .

For each of these question types, the following provides an overview of marking principles and an example of their application.

A Questions that ask candidates to *Describe* . . . (4–6 marks)

Candidates must make a number of relevant, factual points. These should be key points. The points do not need to be in any particular order. Candidates may provide a number of straightforward points or a smaller number of developed points, or a combination of these.

Up to the total mark allocation for this question:

- award **1 mark** for each accurate relevant point
- award **further marks** for development and exemplification.

For example

Question: Describe, in detail, the effects of two of the factors shown. (Modern factors affecting farming.)

Response: New technology has led to increased crop yields, **(1 mark)** leading to better profits for some farmers. (**second mark for development***)*

B Questions that ask candidates to *Explain* . . . (4–6 marks)

Candidates must make a number of points that make the process/situation plain or clear, for example by showing connections between factors or causal relationships between events or processes. These should be key reasons and may include theoretical ideas. There is no need for any prioritising of these reasons. Candidates may provide a number of straightforward reasons or a smaller number of developed reasons, or a combination of these. The command word 'explain' is generally used when candidates are required to demonstrate knowledge and understanding.

Award up to full marks for sufficiently accurate and detailed, fully labelled diagrams.

Up to the total mark allocation for this question:

- award **1 mark** for each accurate relevant point
- award **further marks** for developed explanations.

For example

Question: Explain the formation of a U-shaped valley.

Response: A glacier moves down a main valley which it erodes **(1 mark)** by plucking, where the ice freezes on to fragments of rock and pulls them away. **(second mark for development)**

C Questions that ask candidates to *Give reasons* . . . (4-6 marks)

Candidates must make a number of points that make the process/situation plain or clear, for example by showing connections between factors or causal relationships between events or processes. These should be key reasons and may include theoretical ideas. There is no need for any prioritising of these reasons. Candidates may provide a number of straightforward reasons or a smaller number of developed reasons, or a combination of these. The command words 'give reasons' are generally used when candidates are required to use information from sources.

Up to the total mark allocation for this question:

- award **1 mark** for each accurate relevant point
- award **further marks** for developed reasons.

For example
Question: Give reasons for the differences in the weather conditions between Belfast and Stockholm.

Response: In Stockholm it is dry but in Belfast it is wet, because Stockholm is in a ridge of high pressure whereas Belfast is in a depression. **(1 mark)** Belfast is close to the warm front and therefore experiencing rain. (**Second mark for development**)

D Questions that ask candidates to *Match* . . . (3–4 marks)

Candidates must match two sets of variables by using their map interpretation skills.

Up to the total mark allocation for this question:

- award **1 mark** for each correct answer.

For example
Question: Match the letters A to C with the correct features.

Response: A = forestry. **(1 mark)**

E **Questions that ask candidates to *Give map evidence* . . . (3-4 marks)**
Candidates must look for evidence on the map and make clear statements to support their answer.

Up to the total mark allocation for this question:
- award **1 mark** for each correct statement.

For example
Question: Give map evidence to show that part of Coventry's CBD is located in grid square 3379.

Response: Many roads meet in this square. **(1 mark)**

F **Questions that ask candidates to *Give advantages and/or disadvantages* . . . (4-6 marks)**
Candidates must select relevant advantages or disadvantages of a proposed development and show understanding of their significance to the proposal. Answers may give briefly explained points or a smaller number of developed points. Award marks for accurate map evidence.

Up to the total mark allocation for this question:
- award **1 mark** for each accurate relevant point
- award **further marks** for developed points.

For example
Question: Give either advantages or disadvantages of this location for a shopping centre. You must use map evidence to support your answer.

Response: There are roads and motorways close by allowing the easy delivery of goods **(1 mark)** and access for customers, (**second mark for development**) for example the A46, M6 and M69.

Marking instructions for each question

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
1.	(a)		Award **1 mark** for each correct answer.	**3**	Pyramidal Peak: 495541 U-shaped valley: 388393 Arete: 486514
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. Well-annotated diagrams can obtain full marks. Award **a maximum of 2 marks** for generic statements about deposition **processes**.	**4**	• Longshore drift **(1 mark)** transports sand and deposits it in a sheltered area **(1 mark)** • deposits of sand build up over time until they are above sea level **(1 mark)** • as the deposits grow into the sea a sand spit is formed **(1 mark)** • if the spit continues to grow until it joins up with the opposite side of a bay a sand bar is formed. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
2.	(a)		Award **1 mark** for each correct answer.	**3**	Meander: 425481 V shaped valley: 445437 Waterfall: 474384
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. Full marks can be gained for appropriately annotated diagrams. Award **1 mark** for basic diagrams showing progression. Award a **Maximum of 1 mark** for list of processes.	**4**	• during glaciation, ice scraped away the topsoil and exposed the bare rock **(1 mark)** • the joints make the surface permeable, as water can seep down into the rock **(1 mark)** • acidic rainwater reacts with the limestone and dissolves the rock (carbonation) **(1 mark)** and the water is carried away by running water (solution) **(1 mark)** • continued chemical weathering widens and deepens the cracks to form grykes **(1mark);** rectangular blocks of limestone called clints are separated by the grykes**. (1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
3.			Award **1 mark** for each correct answer.	**3**	A = River B = Forestry C = A87

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
4.			Award **1 mark** for each valid point. Award **2 marks** for a developed point. Award **1 mark** for first relevant grid reference related to a correct point. Award **0 marks** for description, answers must be explanation. Answers must refer to map evidence, if not mark out of four. If only one land use is referred to, mark out of four. If suitability of more than **two** land uses is explained, then award marks for the best two.	**5**	**If recreation and tourism chosen:** • the area would be good because there are lots of opportunities for hillwalking and climbing such as at the Old Man of Storr **(1 mark)** (502540) **(1 mark)** • there are marked walks at 477424 in Portree Forest for visitors to explore **(1 mark).** There is also a picnic site marked here for visitors to enjoy their lunch at **(1 mark)** • there is a caravan and campsite at 490 450 for visitors to stay at **(1 mark)** • there is a golf course at Skeabost (414486) for tourists to play on **(1 mark)** • visitors who like history may enjoy viewing historic buildings such as the old fort at 489453. **(1 mark)** **If forestry chosen:** • there are suitable areas for forestry such as Portree Forest as land is steep and trees can survive on thin soils found there **(1 mark)** These areas are suitable because there is good road access via the A87 for lorries to take timber away **(1 mark)** Also the land here is probably too steep for most other land uses, but trees can still grow on the steep slopes. **(1 mark)** **If water storage and supply chosen:** • this area would be excellent for water supply as there are a number of natural lochs such as Loch Leathan **(1 mark)** (GR 5051) and Loch Duagrich (GR 3939) • there are also steep narrow valleys which could be dammed for a reservoir **(1 mark)** such as the valley of the Lon Mor at 445525 **(1 mark)**; there are many streams and rivers flowing down from the mountains indicating that this area has plentiful rainfall to supply lochs/reservoirs. **(1 mark)** **If farming chosen:** • There are some areas of flat land (GR 465455) which could be suitable for some crops as machinery can be used easily (**1 mark**) or for cattle as flat land provides good quality grazing (**1 mark**). This area is close to Portree and is well connected by roads to provide a market for farm produce **(1 mark)**. Sheep farming would be well suited to the map area as sheep could survive in the steep rugged landscape which they are well suited to. **(1 mark)**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					If renewable energy chosen: • there is a lot of land which is high up, such as 4549, is therefore windy and ideal for generating wind **power (1 mark).** • as much of the area is close to the coast, winds tend to be stronger making the area suitable for wind power generation (**1 mark)**. • Loch Connan (GR 3843) provides water which may be used to generate HEP **(1 mark).** • Loch Snizort (3954) could be a location for tidal generators as it is a sea loch. **(1 mark).** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
5.			Award **1 mark** for each valid point. Award **2 marks** for a developed point. Award **0 marks** for description, answers must be explanation If no named area mentioned, mark out of four. Award a maximum of **1 mark** for reference to loss of farmers' income, for example, vet bills, repairs and cost of replacing livestock	**5**	**For the Yorkshire Dales conflicts may include:** • tourists drop litter which can be a danger to farm animals **(1 mark)** • visitors parking in gateways/on narrow roads can disrupt access for farmers/foresters **(1 mark)** • slow moving farm vehicles can cause delays for visitors **(1 mark)** • tourists can cause footpath erosion by walking across the farmer's land **(1 mark)** • there may be conflict between visitors enjoying outdoor activities and farmers/landowners due to deliberate restrictions to outdoor access **(1 mark)** • farmers often use pesticides and fertilisers and this can cause pollution of local rivers/local environment **(1 mark)** • quarrying creates air and noise pollution for locals **(1 mark)** and also spoils the appearance of the scenery **(1 mark)** • wind farms may cause conflicts with locals/tourists who see them as an eyesore **(1 mark)** • reservoirs may cause conflicts as farmland must be flooded to create the dams. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
6.			Award **1 mark** for each valid point. Award **2 marks** for a developed point. Answers should be explanation.	**5**	• Glasgow's weather is settled as it is covered by an anticyclone/high air pressure area **(1 mark)** • Glasgow will experience dry weather as there are no fronts **(1 mark)** • the wind will be light as isobars are far apart **(1 mark)** • wind direction will be westerly as winds blow clockwise in an anticyclone **(1 mark)** • the sky is obscured due to winter fog, common in anticyclones **(1 mark)** • the temperature is -4 degrees as it is winter which brings low temperatures. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
7.			Award **1 mark** for each valid point. Award **2 marks** for a developed point. Award **0 marks** for description. Answers must refer to factors which affect average UK temperatures, not to factors which affect temperatures at **one** particular time such as the passage of a depression or a tropical continental air mass. Credit references to urban heat islands.	**5**	• South-East England is usually warmer because it is closer to the Equator **(1 mark)** • this is due to intense heating from the sun **(1 mark)** because sun rays are more concentrated **(1 mark)** • places located on flat low-lying land are warmer, for example, Central Scotland, as temperatures decrease as altitude increases **(1 mark)** at the rate of 1°C less for every one hundred metres in height **(1 mark)** • places which are south facing are warmer because they get more sun **(1 mark)** and places which are north facing are colder because they experience cold northerly winds **(1 mark)** • Western coastal areas are warmer because of a warm ocean current **(1 mark)** (The North Atlantic Drift) and due to the prevailing South-Westerly winds that are warmed as they pass across this warm ocean current **(1 mark)** • in summer, places closer to the sea are cooler and in winter they are warmer because the sea heats up slowly in summer and cools slowly in winter. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
8.	(a)		Award **1 mark** for each valid point which describes differences. Award **0 marks** for grid references.	**5**	• Area X in 3534 (part of Rose Hill) has an inner-city location/is near CBD whereas Area Y in 3838 (Oakwood) is located on the outskirts of Derby **(1 mark)** • Area X is likely to be traditional/terraced style housing whereas Area Y's housing is more likely to be detached or semi-detached **(1 mark)** • Area X has grid iron street pattern as compared to Area Y which has cul-de-sacs/modern street pattern **(1 mark)** • Area X looks more congested/built-up with hardly any open space whereas Area Y has some woodland and an area of open space **(1 mark)** • due to its location on rural-urban fringe, Area Y is more likely to have a pleasant/cleaner environment than Area X which is in inner city **(1 mark)** • there is likely to be more pollution in Area X since there are 3 main roads surrounding Area X but Area Y has only one main road nearby **(1 mark)** • also, Area Y has no railway line nearby however, there is a railway line skirting the corner of Area X which could contribute to pollution. **(1 mark)** **Or any other valid point.**
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. **For full marks answers must include map evidence, otherwise mark out of three.** Award a maximum of **1 mark** for reference to activities.	**4**	• Duffield has a rural location with the distance to the centre of Derby being approximately 8 km, which is quite a short distance to commute **(1 mark)** • there is an A-road running through Duffield which leads into the centre of Derby for workers **(1 mark)** • there is a railway station at Duffield which links the settlement with Derby making travel easier for commuters **(1 mark)** • Duffield is a small settlement where the land use is mainly residential with little evidence of industry to cause pollution or disruption **(1 mark)** • there is a nature reserve and a golf course which help to make a pleasant environment **(1 mark)** • there are a small number of basic services for people to use such as the school and the pub**. (1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(c)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. For full marks candidates should refer to both advantages **and** disadvantages, otherwise mark out of four. Award **0 marks** for grid references. Award a maximum of **one mark** for reference to activities in the surrounding area e.g. shopping in CBD, nature reserve, golf course.	**5**	**Advantages:** • there is some flat land available, it would be easy to build on **(1 mark).** There are roads on either side which gives good access to builders and visitors when completed **(1 mark)** • two car parks already exist in the area which would be useful for visitors travelling by car **(1 mark)** • Area Z is located within 5 km of the CBD which makes it more accessible for tourists visiting the centre of Derby for shopping or entertainment **(1 mark)** • 3440 has a few woodland areas which would make it an attractive environment for a hotel. **(1 mark)** **Disadvantages:** • as Area Z has a lot of woodland, some of the trees may need to be cut down to make way for the hotel **(1 mark)** destroying animals' habitats **(1 mark)** • more tourist facilities, for example a hotel, would increase the number of visitors to the area thus causing overcrowding **(1 mark)** • residents in nearby village of Quarndon may object to the increased noise, traffic and pollution. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
9.	(a)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. Answers should be explanation. No marks for descriptive points. For full marks, answers should refer to both birth rates **and** death rates, otherwise mark out of 5.	**6**	• there is a higher proportion of the population of Nigeria under the age of 15 because birth rates are higher in developing countries where fewer women get the chance of an education **(1 mark).** Contraception is less freely available **(1 mark)** and information on birth control is less easily accessed **(1 mark)** • child mortality rates are higher in Nigeria, so people may have many children in order to ensure that some survive **(1 mark)** Many parents in Nigeria have lots of children so they can contribute to the family income when old enough and look after them in old age **(2 marks)** • gender equality in Austria means that there are plenty of career opportunities for women and this reduces birth rates **(1 mark)** • birth rates are also lower in Austria as women tend to choose to have fewer children later in life **(1 mark)** • in developed countries like Austria people often favour lifestyle over larger families **(1 mark)** and children are expensive to raise, so people have fewer **(1 mark)** • there is a larger proportion of the population over 60 in Austria because more people have the chance of medical treatment than in Nigeria where there is less money to set up health centres and hospitals **(2 marks)** • there is a higher proportion of the population over the age of 60 in Austria as there is clean drinking water so less chance of catching diseases like typhoid **(1 mark)** and plenty of food to eat, so very few people die of malnutrition **(1 mark)** • Austria also has pension schemes and facilities to support elderly people for example, care homes so death rates are lower. **(2 marks)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. Award **1 mark** for a **list**.	**4**	• improved diets such as those which include a variety of nutrients and protein help people to live a longer healthier life **(1 mark)** • access to a regular supply of clean water helps to reduce disease and death rates **(1 mark)** • better pensions and good care for the elderly means that people are given the means by which they can live longer **(1 mark)** • good sanitation has improved people's health which means that death rates are lower **(1 mark)** • good medical care has improved people's chances of maintaining good health thus reducing death rates **(1 mark)** • vaccinations have helped reduce worldwide mortality. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
10.			Award **1 mark** for each valid point. Award **2 marks** for a developed point. For full marks candidates should correctly refer to both benefits **and** problems otherwise mark out of five.	**6**	**Benefits:** • HYV or 'miracle' seeds introduced which can produce up to ten times more crops than regular seeds on the same area of land **(1 mark)** • artificial fertilisers help crops to grow better and increase the amount of food available **(1 mark)** • pesticides, fungicides and other chemicals kill pests and diseases which increases crop yield **(1 mark)** Large scale irrigation/putting dams across rivers give a reliable water supply allowing 2 or 3 harvests per year **(1 mark)** • new technology means some farmers can grow a variety of cash crops to further increase profit **(1 mark)** • there is less physical work for people because of increased mechanisation **(1 mark)** • the increase in use of machinery and chemicals has created more jobs, for example, mechanics to fix tractors **(1 mark)** • standards of living have improved as some farmers have money to buy goods **(1 mark)** • biogas plants convert manure into gas, which is used for heating and lighting, they are cheap to build and maintain **(1 mark)** • biofuels are a more environmentally friendly and sustainable source of fuel and are a cheaper alternative to fossil fuels. **(2 marks)** **Problems:** • HYV crops need a lot of fertilisers and pesticides to grow increasing costs and pollution **(1 mark)** • HYV crops require a more reliable source of water — irrigation increases costs **(1 mark)** Poorer farmers cannot compete as they can't grow as many crops without irrigation **(1 mark)** • many farmers are unable to buy chemicals or machines so new technology is of no benefit to them **(1 mark)** • fewer jobs are available because of mechanisation, leading to increased unemployment **(1 mark)** • many poorer families still live in extreme poverty as they cannot afford new technology. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
11.	(a)		Award **1 mark** for each valid point. Award **1 mark** for a trend. For full marks, both lines must be referred to otherwise mark out of three.	**4**	• between 1900 and 2020 both atmospheric carbon dioxide and global carbon dioxide emissions have increased **(1 mark)** • in 1900 atmospheric CO2 was about 295 ppm, but by 1960 it had increased to about 315 ppm **(1 mark)**; from 1960 to 2020 atmospheric CO_2 increased rapidly from 315 ppm to 415 ppm **(1 mark)** • in 1900 carbon dioxide emissions were about 2 Gigatons per year but by 1960 they had increased to about 10 Gigatons per year **(1 mark)**; from 1960 to 2020 the CO_2 emissions shot up from 10 to 35 Gigatons per year. **(1 mark)** **Or any other valid point.**
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point.	**6**	• scientists observe and measure changes in temperature, CO_2 emissions and rising sea levels to monitor the rate of climate change and advise world leaders on the steps which need to be taken to reduce it **(2 marks)** • developed countries switch from fossil fuels to alternative sources of energy in order to reduce the amount of CO_2 in the atmosphere **(1 mark)** • Industries develop and expand existing sources that are more sustainable than fossil fuels, for example, solar, wind and wave power **(2 marks)** • developing countries reduce deforestation and increase afforestation both of which help to reduce CO_2 **(1 mark)** • World summits enable governments to get together and discuss global strategies to try to reduce their use and consumption of carbon-based fossil fuels **(1 mark)** • UN climate summits such as Glasgow in 2021 (COP 26) have helped world leaders to agree actions intended to avert the worst effects of climate change **(1 mark)** • the Carbon Credits Scheme is aimed at reducing greenhouse gas emissions by making the polluter pay according to how much pollution they generate **(2 marks)** • people are encouraged to walk, cycle, or use public transport rather than fossil-fuel powered cars **(1 mark)** • bus lanes and cycle lanes designated to encourage people not to use their car to help reduce emissions **(1 mark)**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• people use smaller more energy-efficient cars or electrical cars, helping to reduce fossil fuel emissions **(1 mark)** • low emissions Zones (LEZs) have been introduced in many cities such as Edinburgh and Manchester to lower vehicle pollution and make city air cleaner **(1 mark)** • Government tax is significantly reduced on vehicles with low CO_2 emissions **(1 mark)** • encourage people to holiday at home to reduce the number of aircraft journeys taken (especially short-haul flights) and therefore lower emissions **(1 mark)** • educate people to switch off lights, power sockets, phone chargers and TVs when not in use to save energy **(1 mark)** • recycle and reuse plastics and oil-based products to reduce use of fossil fuels in their manufacture **(1 mark)** • the Government levy a charge of 25p for every carrier bag to encourage recycling **(1 mark)** • local councils supply bins to help householders recycle various products reducing rubbish and landfill emissions **(1 mark)** • use energy-efficient lightbulbs and rechargeable batteries to conserve energy **(1 mark)** • Government grants to help homeowners insulate house roofs and use more efficient heating systems, reducing demand for power **(1 mark)** • install solar panels on house roof to generate renewable energy **(1 mark)** or switch to an electricity supplier that supplies green electricity. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
12.	(a)		For full marks, both temperature and rainfall must be referred to otherwise mark out of three. Award **1 mark** for each valid point. **Maximum** 1 **mark** for a trend.	**4**	• Iquitos also has consistently high temperature all year round **(1 mark)** With a small temperature range of 2°C **(1 mark)** • the lowest temperature is approximately 25°C which occurs in July **(1 mark)** • the highest temperature is approximately 27°C occurring for 9 months of the year **(1 mark)** • Iquitos in Peru has an equatorial/tropical rainforest climate **(1 mark)** with rainfall totalling approximately 2845 mm **(1 mark)** • the highest rainfall is in March at approximately 350mm **(1 mark)** but there is over 100 mm of rainfall every month**. (1 mark)** **Or any other valid point.**
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. For full marks both uses and misuses should be mentioned, otherwise mark out of five.	**6**	**If the Arctic chosen:** **Use:** • infrastructure such as roads and airports have improved access **(1 mark)** and modern settlements like Anchorage provide services for indigenous Inuit people **(1 mark)** • local people have found employment in the oil industry or modern settlements **(1 mark)** The oil industry has brought huge wealth to some people in Alaska **(1 mark)** some of whom have the highest average income in the USA **(1 mark)** • tourists visit remote areas of tundra and their money is invested back into conservation projects. **(1 mark)** **Misuse:** • the construction of the Trans-Alaskan pipeline has disturbed animals' breeding grounds **(1 mark)** and affected the migration of caribou **(1 mark)** The pipeline has cut-off access to traditional hunting areas for the Inuit people **(1 mark)** • oil drilling has damaged tundra vegetation and wildlife **(1 mark)** • burst oil pipes have caused widespread land and water pollution **(1 mark)** • the traditional way of life of the Inuit is being altered as many are influenced by Western cultures. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
13.	(a)		Award **1 mark** for each valid point. Marks should be awarded for the use of statistics. Award **1 mark** for a trend.	**4**	• overall from the 1910s to the 2010s the number of earthquakes has gone up **(1 mark)** • the number increased from around 280 in the 1910's to just over 400 in the 2010's **(1 mark)** an increase of around 120 **(1 mark)** • the number continued to increase through the 1930's at 360 to 440 in the 1940's **(1 mark)** • the number then fell between the 1940's and 1950's from 440 to 425 **(1 mark)** • the biggest decrease between the decades was from 1950's to 1960's when it fell by 60 **(1 mark)** from 425 to 365 **(1 mark)** • from the 1980's to the 1990's it rose again by around 60 **(1 mark)** • between the 1990's and the 2000's it fell again by 30 **(1 mark)** from 420 to 390 **(1 mark)** • from 2000's - 2010's it rose by around 10. **(1 mark)** **Or any other valid point.**
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point. If no reference to a specific eruption mark out of five. Award **1 mark** for a list of effects. For full marks both people and the landscape must be mentioned, otherwise mark out of five.	**6**	**If Anak Krakatoa chosen:** • the eruption set off huge tsunamis that destroyed hundreds of villages on the Indonesian coasts of Java and Sumatra **(1 mark)** • the eruption killed at least 426 people and injured over 7000 **(1 mark)** • the force of the blast caused Anak Krakatoa to lose about two-thirds of its height going from 338m to 110m and three-quarters of its mass **(2 marks)** • the volcano sent high columns of ash up to 3000m that fell on nearby villages making it difficult to breathe for the residents **(1 mark)** • rescuers struggled to reach the communities which were devastated and cut off by debris from the tsunami **(1 mark)** • buildings on the edge of Carita beach were destroyed by the tsunami **(1 mark)** • fallen trees blocked roads preventing access for rescue workers **(1 mark)** • electricity poles destroyed by the eruption affected power supplies in homes **(1 mark)** • aircraft were suspended from flying in the area due to the danger of the ash cloud causing engine failure. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
14.	(a)		Award **1 mark** for each valid point. Award **1 mark** for a trend. For full marks, BOTH imports and exports should be mentioned, otherwise mark out of three.	**4**	• the value of exports from UK to USA increased between 2014 – 2019 **(1 mark)** by $7 billion (bn) **(1 mark)** from $55bn to $62bn **(1 mark)** • exports then dropped between 2019 and 2020 to $50bn **(1 mark)** before rising again to $55bn between 2020 and 2021 • the value of imports to the UK from USA rose from $53bn in 2014 to almost $69bn in 2019 **(1 mark)** • imports then dropped sharply to $58bn between 2019 and 2020 **(1 mark)**, before increasing again to $61bn between 2020 and 2021. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point.	**6**	**If Ghana chosen:** • the Fairtrade Minimum Price supports farmers that grow products such as cocoa, coffee and bananas to ensure they get a regular income **(1 mark)** • Fairtrade encourages communities to negotiate a higher price for their product than the conventional market price **(1 mark)** hence being less vulnerable to poverty **(1 mark)** • Fairtrade improves access to agricultural services like organic training and premium markets, as a result farmers have an incentive to farm better and sell more **(1 mark)** • additional income through the Fairtrade Premium is supporting better farming, strong cooperatives and investment to improve crops and yields **(1 mark)** • Fairtrade Standards cover key areas for environmental protection, for example, banning harmful chemicals **(1 mark)** • Fairtrade Standards promote training for farmers, such as developing nutrient-rich soils that support healthy plants and encouraging wildlife to help control pests and diseases **(2 marks)** • farmers and workers who choose to participate in Fairtrade often feel a real sense of control over their future with greater power and voice **(1 mark)** • for workers employed on Fairtrade certified plantations, investment of the Fairtrade Premium has led to improvements in education, better housing, better schools and medical facilities **(2 marks)** • investment of the Fairtrade Premium by co-operatives in community development projects is improving the quality of lives of rural communities. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
15.	(a)		Award **1 mark** for each valid point. Award **1 mark** for a list of countries with the **same** data. Award **1 mark** for a general statement. Award **0 marks** for countries with no data.	**4**	• some countries such as Finland and Algeria had less than 1 million visitors in 2020 **(1 mark)** • many countries such as Argentina, Brazil and Portugal had between 1 and 10 million visitors **(1 mark)** • countries including USA, Spain and Italy had between 10 and 50 million visitors **(1 mark)** • only a small number of countries had over 50 million visitors **(1 mark)** these included Mexico and France for example**. (1 mark)** **Or any other valid point.**
	(b)		Award **1 mark** for each valid point. Award **2 marks** for a developed point.	**6**	• mass tourism has increased due to improvements in road, rail and air travel which enables people to travel more easily **(1 mark)** • holiday pay means people can afford to take time off work for a break **(1 mark)** • increased time off work, for example, Bank holidays, gives people the opportunity to visit different places **(1 mark)** • tour operators and travel agents make it easier to go on holiday abroad due to package deals which often include flights, transfers, meals and holiday reps on hand to solve any problems **(2 marks)** • cheap package holidays and budget airlines such as EasyJet/Jet2 make holidays more affordable for many people **(1 mark)** • TV travel programmes and adverts on social media inspire people to visit foreign locations **(1 mark)** • the demand to explore various places of interest has increased as globalisation has made the world smaller **(1 mark)** • people also want to experience different cultures and new adventures. **(1 mark)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
16.	(a)		Award **1 mark** for each valid point. Only **1 mark** should be awarded for a trend. Accept answers for highest and lowest which refer to the year and the figure. For full marks both cases of, and number of deaths from malaria should be mentioned otherwise mark out of three.	**4**	• the highest number of malaria deaths was 900,000 in 2000 **(1 mark)** • the lowest number of cases was in 2014 at 224 million **(1 mark)** • overall the number of malaria deaths has gone down **(1 mark)** • between 2000 and 2004 the number of cases increased from 241 million to 247 million **(1 mark)** but then decreased to 238 million by 2008 **(1 mark)** • between 2014 and 2020 the number of cases rose from 224 million to 241 million **(1 mark)** • the number of deaths from malaria fell steadily between 2000 and 2018 from 900,000 to 560,000 **(1 mark)**; the number of deaths then rose from 2018 back up to 620,000 in 2020. **(1 mark)** **Or any other valid point**
	(b)		Award **0 marks** for simple description of any control methods. Answers should be explanatory. Award **1 mark** for each valid point Award **2 marks** for a developed point. If more than one disease mentioned, then give marks for the highest scoring answer.		**If heart disease chosen:** • the incidence of heart disease can be reduced through education about positive lifestyle choices. These might include taking regular exercise to help maintain a healthy heart **(1 mark)** and avoiding too much fatty food to help reduce the build-up of cholesterol in arteries **(1 mark)** • eating healthily and maintaining a healthy weight will help to reduce strain on the heart **(1 mark)** • as people become more aware of the risks, more people choose to follow healthy lifestyle options in order to reduce the risk of suffering from heart disease **(1 mark)** • treatment for people with heart disease usually includes the use of different types of medicines such as Rivaroxaban and Warfarin which are designed to thin the blood to reduce the chance of blood clotting **(1 mark)** • other medicines called statins help to reduce cholesterol, reducing the risk of a heart attack **(1 mark)**, while others are called beta blockers which help to slow down the heart rate, reducing strain on it **(1 mark)** • sometimes heart surgery such as a bypass operation is required to repair a damaged part of the heart **(1 mark)**, stents can be used to widen narrowed blood vessels (angioplasty) **(1 mark)** or in the most severe cases patients may be given a heart transplant because their own heart is too weak or damaged. **(1 mark)**

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					If cancer chosen • treatment for cancer may include surgery to remove a tumour **(1 mark)** • radiation can be used to target a tumour and either destroy it or at least reduce its size **(1 mark)** • chemotherapy is a common treatment for different types of cancer — drugs are used to target tumour(s) throughout the body **(1 mark)** which helps to slow down their growth or destroy them completely **(1 mark)** • health campaigns help to educate people about the healthy lifestyle choices which they can make to reduce the risk of developing cancer **(1 mark)** these include stopping smoking as there is a proven link between smoking and lung cancer **(1 mark)** • choosing to eat a healthy diet with plenty of fresh vegetables and fruit for example, is better for you than lots of processed foods, some of which have been associated with a higher cancer risk **(1 mark)** • there are many screening programmes in operation now where everyone in certain age groups is offered a test to check whether they have certain types of cancer, such as breast or bowel cancer **(1 mark)** • early detection gives a better chance of survival **(1 mark)** • people are also encouraged to check themselves for any suspicious lumps and to see their doctor if they find one, which can also help to increase survival rates **(1 mark)** • as obesity is one of the biggest factors increasing the risk of cancer, there are nationwide campaigns aimed at encouraging people to maintain a healthy weight. **(1 mark)**

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					If asthma chosen: • treatment for asthma usually involves the use of an inhaler which helps to deliver medication directly into the airways when breathing in **(1 mark)** • certain types of inhalers (reliever inhalers) aim to relax the muscles around narrowed airways, allowing breathing to become easier and more regular **(1 mark);** other types of inhalers (preventer inhalers) deliver medication over a longer time to help prevent the onset of an asthma attack **(1 mark)** • sometimes oral medication such as steroid tablets can be used to treat patients where inhalers are not having the desired effect **(1 mark)** • other ways of helping to reduce the incidence of asthma involve targeting the environment in which people live. Some people are allergic to house dust mites, triggering asthma, and so reducing the amount of dust in a house can help to prevent this happening **(1 mark)** • dust can be reduced by regular dusting and cleaning for example, and the use of barrier materials on bed covers and mattresses **(1 mark)** • making sure that there are no areas of damp or mould in a house can help as breathing in mould spores may increase the risk of asthma **(1 mark)** • governments can help to reduce the incidence of asthma by reducing air pollution, especially in congested cities, where microscopic particles of pollution from car exhausts for example, have been shown to lead to many breathing difficulties including asthma **(1 mark)** • methods of doing this might include introducing a Low Emissions Zone (LEZ) for vehicles in the city centre and more environmentally friendly methods of transport such as walking, cycling or trams. **(1 mark)** **Or any other valid point.**

[END OF MARKING INSTRUCTIONS]